

Sequence Comparison B

RESULT 15

AA01530

ID AA01530 standard; Protein; 722 AA.

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AC AA01530;

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DT 16-JUN-1999 (first entry)

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DE Amino acid sequence of murine KCNQ2/KvLR1.

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KW KCNQ protein; nervous system-specific potassium channel;

KW neuronal excitability; neurotransmitter release; KCNQ modulator;

KW ataxia; myokymia; seizure; Alzheimer's disease; Parkinson's disease;

KW age-associated memory loss; learning deficiency; motor neuron disease;

KW epilepsy; stroke.

XX

OS Mus sp.

XX

PN WO9907832-A1.

XX

PD 18-FEB-1999.

XX

PF 26-JUN-1998; 98WO-US13276.

XX

PR 12-AUG-1997; 97US-0055599.

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PA (BRIM) BRISTOL-MYERS SQUIBB CO.

XX

PI Blonar MA, Dworetzky S, Gribkoff VK, Levesque PC;

PI Little WA, Neubauer MG, Yang W;

XX

DR WPI; 1999-190047/16.

DR N-PSDB; AAX26588.

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PT New potassium channels, KCNQ2 and KCNQ3 - may be involved in

PT neurotransmission and neuroprotection, used to treat, e.g. ataxia

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PS Claim 4; Fig 10A-D; 64pp; English.

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CC The present sequence represents murine KCNQ2/KvLR1. KCNQ proteins are

CC nervous system-specific potassium channels. In neurons, potassium

CC channels regulate neuronal excitability, action potential shape

CC and firing pattern, and neurotransmitter release. KCNQ modulators

CC may be used to treat disorders such as ataxia, myokymia, seizures,

CC Alzheimer's disease, Parkinson's disease, age-associated memory

CC loss, learning deficiencies, motor neuron diseases, epilepsy, and

CC stroke.

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SQ Sequence 722 AA;

Query Match 39.5%; Score 1813; DB 20; Length 722;

Best Local Similarity 55.5%; Pred. No. 2e-152;

Matches 393; Conservative 72; Mismatches 153; Indels 90; Gaps 17;

Qy 17 AARGDGLLLGTRAATLGGGGGLRESRRGKQGARMSLLGKPLSYTSSQSCRRNVKYRRV 76

Db 34 STRDGALLIAGSEAPK---RGSVLSKPRTGGAGA-----GKP-----PKRNAFYRK 77

Qy 77 QNYLYNVLERPRGWAFIYHAFVFLLVFGCLILSVFSTIPEHTKLASSCLLILEFVMIVVF 136

Db 78 QNFLYNVLERPRGWAFIYHAYVFLLVFSLVLSVFSTIKEYEKSSEGALYILEIVTIVVF 137

Qy 137 GLEFIIRIWSAGCCCRYRGWQGRRLRFARKPFCVIDTIVLIASIAVVS AKTQGNIFATSAL 196

Db 138 GVEYFVRIWAAGCCCRYRGWRGRLKFARKPFCVIDIMVLIASIAVLAAGSQGNVFATSAL 197

Qy 197 RSLRFLQILRMVMDRRGGTWKLLGSVVYAHSKELITAWYIGFLVLIFSSFLVYLVEKDA 256

[illegible]